



THE
ONTARIO WATER RESOURCES
COMMISSION

WATER POLLUTION SURVEY

OF THE

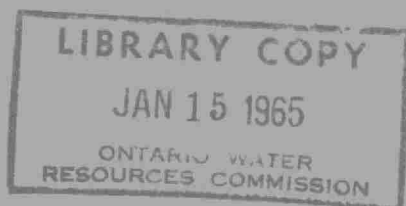
TOWN OF DRYDEN

DISTRICT OF KENORA

1964

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R E P O R T

on

WATER POLLUTION SURVEY

of the

TOWN OF DRYDEN

District of Kenora

September 18, 1964.

Division of Sanitary Engineering



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REPORT

ONTARIO WATER RESOURCES COMMISSION

A water pollution survey was conducted in the Town of Dryden on September 18, 1964.

Mr. W. M. Wake, Clerk-Treasurer, and Mr. S. T. Owen, Town Engineer, provided information pertinent to the survey. Mr. J. Saskoley, Works Superintendent, assisted in the sampling programme.

GENERAL

The 1963 assessed population of the Town of Dryden is listed as 6230 (1964 Municipal Directory).

General drainage from the area is into the Wabigoon River.

The town is serviced with a combined sewer system which outfalls without treatment into the river.

Plans are currently being instituted for the installation of a municipal sanitary sewer system and an adequate method for sewage treatment.

Waste from the Dryden Paper Company Ltd. is also discharged into the Wabigoon River. An OWRC Industrial Waste report dated September, 1964, reviews the requirements for the control of waste for the industry.

WATER QUALITY ANALYSES

The waste water collection sewers outfall to the Wabigoon River at three points.

1. The south sewer system discharges to the river at a point midway between the ends of Dyke Street and Princess Street.
2. The central sewer area discharges at a point near King Street.
3. The north sewer area discharges to the river at a point near the end of Cecil Avenue.

The sanitary chemical and bacteriological analyses of samples collected from each of the outfalls are listed in Table 1. The location of the sampling points are indicated on the accompanying map.

INTERPRETATION OF ANALYSES

For convenience in the interpretation of laboratory analyses, the water quality objectives suggested by the Ontario Water Resources Commission, for the discharge from surface and waste water drains, are listed:

5-Day BOD (Biochemical Oxygen Demand)
- not greater than 15 parts per million (ppm)

Suspended Solids
- not greater than 15 parts per million (ppm)

Coliform Count (Membrane Filter)
- not greater than 2400 per 100 millilitres (ml)

Anionic Detergent

The presence of anionic detergent indicates pollution from domestic sources.

SIGNIFICANCE OF LABORATORY ANALYSES

It is noted that the sanitary chemical and bacteriological analyses of samples collected from the drain outfalls show results greatly in excess of the water quality objectives. It is therefore indicated that a condition of gross pollution exists in the drains throughout the municipality. The excessively high coliform counts and the concentration of anionic detergent indicates that domestic sewage is the probable source of such pollution. The discharge from these drains in turn may be considered as a major source of pollution to the Wabigoon River watercourse.

SUMMARY

A water pollution survey was conducted in the Town of Dryden on September 18, 1964.

The discharge from the outfalls of all drains investigated was grossly polluted. The extremely high BOD, anionic detergent, and coliform counts indicate sanitary sewage and other domestic wastes to be the major source of the pollution.

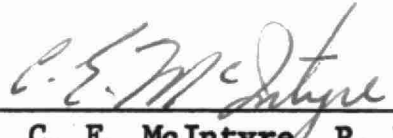
RECOMMENDATIONS

It is therefore recommended as a measure for the abatement of pollution in the Town of Dryden, and in the Wabigoon River watercourse, that the municipality should institute a sewerage works programme.

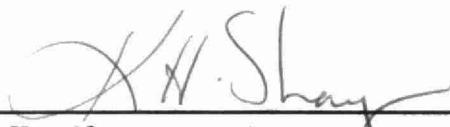
Such a programme should include the installation of required sanitary sewers and the provision of an adequate means for the treatment of sewage.

All of which is respectfully submitted,

District Engineer:


C. E. McIntyre, P. Eng.

Approved by:


K. H. Sharpe, Director.

ec

T A B L E 1

TOWN OF DRYDEN - WATER POLLUTION SURVEY

Water Quality - Municipal Sewers

<u>Sample No.</u>	<u>Location of Sampling Point</u>	<u>5-Day BOD (ppm)</u>	<u>SOLIDS (ppm)</u>			<u>Anionic Detergent as A B S (ppm)</u>	<u>Coliform Count per 100 ml MEMBRANE FILTER</u>
			<u>Total</u>	<u>Susp.</u>	<u>Diss.</u>		
1	South sewer area at outfall to river	140	432	152	280	4.8	21,000,000
2	King St. sewer area at outfall to river	225	1004	164	840	6.4	19,000,000
3	North sewer area at outfall to river	220	730	342	388	12.6	35,000,000

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